



## Doric Capitals in Pessinus: A Brief Overview of Pessinus Architectural Activities

Adem Yurtsever<sup>1</sup> 



<sup>1</sup>Dr. Lecturer Member, Anadolu University,  
Faculty of Letters, Department of Archeology,  
Eskiřehir, Turkiye

ORCID ID: A.Y.0000-0002-6727-9873

**Sorumlu yazar/Corresponding author:**

Adem Yurtsever,  
Anadolu University, Faculty of Letters,  
Department of Archeology, Eskiřehir, Turkiye  
E-mail: yurtsever.adem@gmail.com

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### ABSTRACT

The city of Pessinus is located within the boundaries of Ballıhisar Village, approximately 16 km south of Sivrihisar district in Eskiřehir, Turkey. The area where the city is situated was first known as Phrygia and then as Galatia in ancient times. A significant portion of the ancient city currently remains buried beneath the village settlement. The conducted excavations and research have demonstrated the city to have been an important cult center during Hellenistic and Roman times. Pessinus has a rich cultural heritage, and impressive examples of architectural layouts and designs can evidently be found within its ancient ruins. One of the notable surviving examples of ancient architecture in the city is the Doric capitals identified at various points. This study provides a detailed analysis of the material, design, and stylistic features of the Doric capitals identified in Pessinus. Furthermore, it examines the typological variety, details, and regional variations of these capitals, along with their contributions to the overall architectural design.

**Keywords:** Pessinus, Doric capitals, architectural documentation, architectural order



## Introduction

The scientific excavation and research in the important ancient cult center of Pessinus has a long history. Between 1967-2008, Prof. Dr. P. Lambrechts and Prof. Dr. J. Devreker conducted research with some interruptions on behalf of Ghent University (Claerhout & Devreker, 2008). Since 2009, research activities have been carried out under the direction of Prof. Dr. G. R. Tssetskhladze on behalf of Melbourne University (Tssetskhladze, 2019), and these studies continued uninterrupted until 2015.

The archaeological research that was carried out in the city has led to significant results regarding its historical period. These studies have provided valuable information about the city's relationship with the Hittite<sup>1</sup> culture (Claerhout & Devreker, 2008, p. 97; Tssetskhladze, 2019, pp. 24–25), the Phrygian culture (Tssetskhladze, 2009, pp. 703–710; Tssetskhladze, 2019, pp. 26–32; Verlinde, 2015a, p. 71), the development of the city's identity during the Hellenistic period (Verlinde, 2010, pp. 116–119; Verlinde, 2015a, p. 65), and its development during the Roman imperial period (Verlinde, 2010, 2015b). The detailed study of this significant cult center in Central Anatolia has not only shed light on the archaeological significance of the region but also improved the understanding of the characteristics of its cultural heritage.

This study focuses on the Doric capitals, specifically those discovered in the garden of the excavation house and those identified in the Eastern Stoa of the Quadriporticus (Devreker et al., 1995, p. 143; Devreker et al., 2009, pp. 64–67; Devreker et al., 2010, pp. 149–153),<sup>2</sup> known as Sector H (Verlinde, 2010; Verlinde, 2015). While the Doric capitals in the Quadriporticus display similar stylistic features, the origins and precise arrival date of those found in the excavation house garden remain uncertain, making their unique stylistic characteristics all the more intriguing. Despite this, a comprehensive stylistic analysis of these capitals has not been undertaken, and beyond those already documented, no additional examples of Doric capitals were found during the field survey of the ancient city of Pessinus.

The diversity in the quality of materials the stonemasons of the time used demonstrate their skill in working with different types of stone. The Doric capitals found near the excavation house are made of marble, whereas those discovered in the East Stoa of the Quadriporticus were crafted from sandstone. Such variation in building materials suggests the presence of craftsmen capable of working with both types and also implies different material preferences for distinct architectural structures. This study aims to meticulously examine the materials, designs, and stylistic features of the Doric capitals discovered in Pessinus. Based on the results of this research, the study proposes a date for these capitals and assesses

1 During the Pessinus excavations, a hearth dated to 1500 BC was found in Area B6a.

2 This Quadriporticus, a structure planned by Peristyl, is located in front of the temple area dedicated to the cult of the emperor, which was built in the second quarter of the 1<sup>st</sup> century AD.

their significance within the city's historical context. Furthermore, this study presents fresh insights and interpretations regarding the function of the Sector H structure that was analyzed in terms of the Rhodian Peristyle plan (Vitr. De arch. VII.7,3; Verlinde, 2015a, p. 61).

### **Methodology, Materials, and Profile Characteristics**

The catalog prepared for the Doric capitals found at Pessinus reveals that certain groups of capitals share common stylistic features. Each Doric capital has been described in detail in the catalog's tables, with exemplary capitals having been numerically categorized from Cat. No. 1 to Cat. No. 9 (see Table 1). Notably, three distinct groups (i.e., Cat. No. 1, Cat. Nos. 2-4, and Cat. Nos. 5-9) have been identified due to their similarities in stylistic features. These groups were formed based on considerations of the capitals' profile characteristics, dimensions, and decorative details. The process of stylistic analysis and exemplification has been elaborated for each capital by drawing upon different well-dated examples, which has been crucial in establishing the main elements for dating.

The documentation of the capitals has been a significant aspect of this study, particularly with the inclusion of profile drawings. Detailed profile drawings have been meticulously prepared for each grouped capital. Special attention has been given to the echinus and annulet profile types, leading to the creation of large-scale drawings that aid in better comprehension. These profile drawings are essential in determining the capitals dating and identifying the differences and similarities in their stylistic features (Fig. 1). In addition to conventional documentation methods, a tablet computer equipped with a LiDAR sensor has been utilized for scanning each documented capital (Yurtsever, 2023, pp. 200–206). This innovative approach has allowed the preservation of digital scans of the columns, resulting in the establishment of a comprehensive database. By employing both traditional and modern documentation methods, this research ensures a robust and comprehensive analysis of the Doric capitals stylistic evolution and architectural significance at Pessinus.

During the documentation, the condition, preservation status, profile characteristics, and material quality of the Doric capitals were able to be better understood. The Doric capital displayed in Cat. No. 1 (see Figs. 2 and 11) is considerably damaged and incomplete. The design features of the capital can be understood thanks to the intact sections and their profile characteristics. The neck section exhibits concave curves with sharp edges, and its arris are band-shaped with Ionic fluting. Above the fluting, an annulet is depicted in two steps. The echinus on the annulet slightly curves outward and rises slightly proud, with a thin line appearing where the echinus meets the abacus table. The abacus table has some erosion, and a band-shaped crown profile can be observed on the table. The typological feature of the crown profile could not be determined due to the preservation status.

The Doric capital referred to as Cat. No. 2 (see Fig. 3) has largely preserved its profile characteristics, and the lower part of the capital has a dowel socket measuring 4x4x5 cm at

the center. The neck section has a band-shaped relief ornament in the form of a half-circle with sharp edges, and a depiction of an arrow/spearhead is placed between each half-circle relief. Therewithal, the general form of the neck decorations resembles a different variation of the Ionic cymatium. The only difference here is the absence of the egg in the hollow. The decorative style in question can also be interpreted as spearhead-like embellishments rising to the starting point of the annulets and terminating in a semi-circular form between the grooves. The annulet on the neck section shows a style known as a “saw-toothed,” or V-shaped, annulet. The transitions between the neck and annulet are harmonious, resulting in a seamless and aesthetically pleasing appearance. The echinus on the annulet slightly curves outward and rises slightly proud with fine comb traces in its central part. Based on the documented capitals of the same type and profile characteristics, one can infer that the abacus has a flat band-shaped profile and carries a “Pergamon Ovolo” crown (Shoe, 1936, p. 22; Vasdaris, 1987, pp. 62–69; Gider Büyüközer, 2013, pp. 53–60, figs. 20-21; Yurtsever & Yılmaz Kolancı, 2022, p. 195, fn. 17). The Doric capitals labeled Cat. Nos. 3-4 (see Figs. 4-5) also exhibit similar profiles and stylistic features with Cat. No. 1. The profile features of the capitals with Cat. Nos. 2-4, which likely belong to the same building, were analyzed by comparing the intact sections of these capitals with each other, resulting in the creation of a restitution proposal for the capitals (see Fig. 12).

The Doric capital labeled Cat. No. 5 (Fig. 6) is well-preserved and fully maintains its profile characteristics. The neck section of the capital contains shallow line ornamentation, and the neck is slightly inclined downward from the annulet. The annulet is saw-toothed (i.e., V-shaped).<sup>3</sup> The transitions between the neck and annulet are smooth and natural. The echinus on the annulet slightly curves outward and rises slightly proud. The abacus table is flat and carries round corner consoles. The Doric capitals labeled Cat. Nos. 6-8 (Fig. 7-9) display the same profile and stylistic features. Only the dimensions of the capital labeled Cat. No. 9 (Fig. 10) are taller compared to the other capitals in the same group. Additionally, thicker comb traces can be observed on the longer neck section of this capital. This might be a later application that occurred in a subsequent period. A restitution drawing has also been created for these capitals belonging to the same structure (see Fig. 13).

### Stylistic Analysis and Dating

The Doric capitals found in the city of Pessinus have provided sufficient profile features for conducting a stylistic analysis. Despite fractures and missing parts, the reconstruction of the complete form of the capitals has been achieved through this analysis. Dating the Doric capitals presents stylistic challenges (Rumscheid, 1994, p. 302; Mert, 2016, p. 382; Yurtsever & Yılmaz Kolancı, 2022, p. 199). However, this study has relied extensively on capitals from securely dated structures as reference points.

3 For the rest of the text, the term V-shaped annulet is preferred.

The stylistic analysis will commence with the Doric capital cataloged as Cat. No. 1. The significant features of the neck, annulet, echinus profile, and ovolo profile on the abacus are essential points of examination. The neck of the capital displays Ionic flutes with a straight band formed between them (Hellström, 1985, p. 132; Gider Büyüközer, 2013, pp. 35–39). F. Rumscheid (1994, p. 303) attributed this band design and the flutes to Ionic influence, categorizing such capitals under Group 4, which suggests their presence in Anatolia during the High and Late Hellenistic periods. According to Z. Gider Büyüközer (2013, pp. 98–99), the Ionic flutes on the neck section with a flat top fall under the category type “By6”. These types were used from the 2<sup>nd</sup> century BC to the early 1<sup>st</sup> century AD. Although the annulet appears round due to wear, it has a double-stepped form worked outwards, separating from the echinus in intact portions (Vasdaris, 1987, pp. 143–146; Yurtsever & Yılmaz Kolancı, 2022, pp. 194–195, fn. 15). Gider Büyüközer (2013, pp. 82–85) classified this type of annulet as Type An3 and noted it to have been in use from the 2<sup>nd</sup> century BC to the 1<sup>st</sup> century AD. When examined stylistically, the first annulet from the bottom in the Pessinus capital is aligned with the second and third annulets, forming a stepped configuration. These features are observed in Doric capitals from the 2<sup>nd</sup> century BC, as exemplified by the Skythinos Monument Column in Pergamon (Rumscheid, 1994, Cat. no. 210, Taf. 125. 5) and the North Stoa in Priene (Rumscheid, 1994, Cat. no. 305 Taf. 165-5).

The echinus of the Cat. No. 1 capital slightly curves outward, and the top point of the echinus is connected to the underside of the abacus through an inward turn, forming an angular transition. Capitals with such an echinus profile were in use from the 4<sup>th</sup> century BC until the 1<sup>st</sup> century AD (Gider Büyüközer, 2013, pp. 63–65, fn. 341).<sup>4</sup> The outward-bulging echinus turns inward at its upper point, connecting to the abacus table. Despite fractures and missing parts, the abacus table displays a cymatium, but its exact type cannot be identified. When considering all these features, similar examples can be found in the capitals of the Northern Stoa of the Hekate Sanctuary (Gider, 2012, pp. 264–265, 271, figs. 6-7; Gider Büyüközer, 2013, pp. 37, 664) and of the West Stoa (Gider Büyüközer, 2013, pp. 37, 651–652, 655) at Lagina, dating to the Early Augustan Period. In the restituted drawings of the Pessinus capital, the abacus appears to have a width of at least 50 cm, a lower diameter of 40 cm, and 20 Ionic flutes (Fig. 11).

The Doric capital from the stage building of the Augustan-period theater in Stratonikeia (Mert, 2002, p. 187; 2008, pp. 133, 150 abb. 25-26; Ismaelli, 2009, p. 381, fig. 408; Gider Büyüközer, 2013, fig. 37; Söğüt, 2019, p. 55) provides another comparable stylistic example. The Stratonikeia capital displays triple-arranged annulets and Doric characteristics on the neck flutes, unlike the Pessinus capital. However, the abacus, echinus profile, and annulets

4 Gider Büyüközer listed early examples dating back to the 4<sup>th</sup> century BC with this type of profile in the Caria region and stated the earliest example to have been identified in the Oikoi Building in Labraunda.

are stylistically similar to those of the Pessinus capital. Similarly, comparable profile features can be observed in Doric capitals from the Gymnasium of Hierapolis (Ismaelli, 2009, pp. 165–169, 380–384, 443–445), dating to the early 1<sup>st</sup> century AD. The Gymnasium capital has a more inflated echinus and step-shaped annulets on a polygonal fluted neck, terminating in semicircular shapes at the top. Therefore, the Pessinus capital was likely not produced after the Augustan Era.

Another noteworthy feature of the Pessinus capital is the unfluted section on the neck that begins after the termination of the Ionic fluting. An excellent example of such Doric capitals can be observed in the Water Structure of the city of Stratonikeia, where they were repurposed and dated to the early Roman Imperial period (Gider Büyüközer, 2013, pp. 37, 105, fig. 41, pl. 9, 4). The Doric capitals of the Stratonikeia Water Structure have a section without grooves, elevated between the termination point of the grooves and the annulets. Regarding the Pessinus capital, a flat-surfaced band is created after the annulets in the transition to the neck section. Therefore, in terms of the treatment of the neck section, the Pessinus capital falls into Typology Type By6 as defined by Gider Büyüközer (2013, p. 99).<sup>5</sup> The abacus, echinus, and annulet profile of this capital closely resemble those of the Pessinus capital, with the neck section of the Pessinus capital exhibiting a distinctive variant characterized by a lower unfluted portion. Furthermore, the capitals on display in the Milas Museum, stylistically dated to the second half of the 1<sup>st</sup> century BC, particularly exhibit stylistic similarities in the cyma on the abacus and the fluting on the neck section, akin to the stylistic features of the Pessinus capital.

The examined comparative examples, including the Cat. No. 1 Doric capital from Pessinus, unequivocally suggest that this capital cannot be dated earlier than mid-1<sup>st</sup> century BC, nor can it be placed in a period later than the Augustan Era. Notably, the examples from Lagina, as well as the other specifically dated Doric capitals that have been studied analogically, support the attribution of the Pessinus capital to the Early Augustan Period.

The Doric capitals Cat. Nos. 2, 3, and 4 from Pessinus exhibit distinctive stylistic features, particularly in their decorative details in the neck section. During the research conducted in the city, two more capitals with similar profiles and stylistic characteristics as Capital No. 2 were identified. Therefore, the Doric capitals Cat. Nos. 3 and 4 have shared stylistic features and have been collectively evaluated. Each of these capitals has been preserved to some extent, enabling restitution after individual examinations. Consequently, the neck, echinus, and abacus of each capital were crafted together. Although their heights vary between 21.5 and 25.5 cm, the restitution drawing indicates a height of 24.5 cm. The lower diameter should be 55 cm, and the abacus width should be at least 70 cm. The columns supporting the capitals were also suggested to have been fluted and each column to have maybe had at least 20 flutes.

5 Gider Büyüközer has stated that these types of capitals emerged in Anatolia during the Hellenistic period and continued to be used in the 1<sup>st</sup> century AD.

The decorative features in the neck section of the examined Doric capitals present a distinct design element. Notably, between the consecutive semi-circular, sharp-edged bands in the neck section, each capital has arrow-/spear-shaped forms inserted (Figure 12). Alternatively, the stonemason might have aimed to create a different design of the groove/tongue motif for Doric or Ionic arris. In the literature, examples of such decorative elements on the neck section of Doric capitals are not widely known. Just above these decorative elements are annulets arranged in groups of three and forming stepped patterns.<sup>6</sup> The first annulet extends perpendicular to the echinus profile at an angle slightly exceeding 90 degrees, with the second and third annulets following it, extending downwards at a 90-degree angle. Hellenistic period examples of annulets with triple arrangements in the literature are quite numerous (Rumscheid, 1994, tafs. 112, 1; 117, 6; 136, 1; 165, 1; 169, 1; Rumscheid, 2000, p. 199, fig. 173; Gider Büyüközer, 2020, p. 135, fig. 10a), and understood to have been in use throughout the 1<sup>st</sup> century AD. (Bernardi Ferrero, 1988, p. 168, fig. 230; Rumscheid, 1994, taf. 10, 4; Smith, 2013, p. 31, pl. 4A-E; Uz, 1985, pp. 108, 230 figs. 16 & 19; Uz, 2013, p. 45, pls. 18a, 38, 44; Kadioğlu, 2021, pp. 188–240; Ismaelli, 2009, p. 362, fig. 395; Yurtsever & Yılmaz Kolancı, 2022, pp. 202–203 figs. 9-11). A recent study by Yurtsever & Yılmaz Kolancı (2022, p. 199) also pointed out the complexity of dating based on the number and stylistic features of annulets.

The echinus profiles of the capitals are slightly convex and bulge outward as they rise, aligning with the level of the abacus top surface. The abacus of the capitals has a Pergamene ovolo profile (Shoe, 1936, p. 22; Gider Büyüközer, 2013, pp. 53–60, figs. 20-21; Yurtsever & Yılmaz Kolancı, 2022, p. 195, fns. 17-18). For this reason, capitals with Cat. Nos. 2-4 are referred to as Doric capitals crowned with a Pergamene ovolo. The Pessinus capitals exhibit the characteristics of the Pergamene ovolo Type IV (Shoe, 1936, p. 22; Gider Büyüközer, 2013, p. 142), and this type of capital was known to have been used from the 3<sup>rd</sup>-2<sup>nd</sup> centuries BC to the 1<sup>st</sup> century AD (Ismaelli, 2009, pp. 380–381; Gider Büyüközer, 2013, p. 56). When considering the examples from the Hadrianic Forum in the ancient city of Cremna in Pisidia, this usage period can be extended up to the mid-2<sup>nd</sup> century AD (Mitchell, 1995, pp. 59–63, fig. 14). Therefore, dating the capitals based solely on the features of the annulet profiles does not appear possible. In this context, the evaluation of the Pessinus capitals will be based on comparative examples with similar abacus, echinus, and annulet profiles.

The Doric capitals at Pessinus, characterized by their triple arrangement of annulets, slightly convex rising echinus, and abacus section beginning in line with the echinus, closely resemble the Doric capitals found in the agora of Lyrbe, that have been dated to the first

6 Due to significant abrasion developed over time on Doric Capitals Cat. Nos. 2, 3, and 4, the annulets appear in different forms in the figures. However, field research and profile drawings of the intact sections of the capitals have indicated that the annulets are crafted in a stepped pattern. Please refer to Figures 1 and 12 in the study.

quarter of the 1<sup>st</sup> century AD (Rumscheid, 1994, taf. 181, 4; Yıldırım, 2018, p. 834, res. 3-22). Moreover, similar profile characteristics are observed in the Doric capitals from Antioch of Pisidia (Taşlıalan, 1994, pp. 250–251, fig. 19; Ismaelli, 2009, p. 381, fig. 408), the Augustan period theater in Stratonikeia (Mert, 2002, p. 187; 2008, pp. 133, 150 abbs. 25-26; Ismaelli, 2009, p. 381, fig. 408; Gider Büyüközer, 2013, fig. 37; Söğüt, 2019, p. 55), the Stoas of the Gymnasium in Hierapolis (Ismaelli, 2009, pp. 443–445, fig. 407), and at Attouda (Yurtsever & Yılmaz Kolancı, 2022, pp. 202–203, cat. nos. 7 & 9). Based on these examples, to consider the Pessinus capitals labeled Cat. Nos. 2-4 as dating to the Augustan period would be reasonable. However, further examination is required to explore the depiction of the arrow/spearheads in the neck section. These motifs appear to be compressed between the two consecutive semi-circular bands and are of particular significance. A similar motif can be observed on a block located at the center of the gate of the Port in the ancient city of Ephesus. Similar to the Pessinus example, the decorative element from the time of Julius Claudius also exhibits sharp-edged arrow/spearheads emerging between the two bowls (Alzinger, 1974, p. 61, tafs. 31, 55; tafs. 85, 140b). Furthermore, within the same city and structure, a capital displaying a similar style of spearhead can be found (Alzinger, 1974, p. 61, taf. 68, 106a). When considering these examples, one may plausibly assert that the Pessinus capitals cannot be dated to a period before the Augustan era or after the time of Julius Claudius. The primary proposal is based on the stylistic similarity of the profiles by considering the examples from Stratonikeia and Hierapolis and suggests the Augustan period. This period coincides with a revival of Doric architecture in Anatolia, albeit to a limited extent (Fochetti, 2020, pp. 120–129; Yurtsever, 2022, pp. 204–205, fn. 83).

Cat. Nos. 5-9 of the Doric capitals will be examined together due to their common profile characteristics and their discovery in the same area, referred to as Sector H by the excavators. The structure (Sector H) where these capitals were found has been identified as having a Rhodian Peristyle plan, with evidence of partial anastylosis applied to the Eastern Stoa (Devreker et al., 2009, p. 66, fig. 6; Devreker et al., 2010, pp. 152–153 fig. 9). Previous studies have considered various designations for this area, including the agora, an independent palestra, gymnasium, and Heroon (Verlinde, 2010, pp. 121–124; Verlinde, 2015a, p. 61, fn. 113).<sup>7</sup> Excavation works have revealed the structure in Sector H to date back to the Late Hellenistic Period, to have been constructed in 129-120 BC, and to have been destroyed by a fire between 80-75 BC (Verlinde, 2010, pp. 119–127, fig. 10; Verlinde, 2015a, pp. 33, 60). P. Pensabene (2004, pp. 110–112, fig. 17; Verlinde, 2010, p. 126) dated the Doric capitals recovered from the Eastern Stoa to a period between 200-150 BC by referencing Vasdaris work (1992, pp. 169, 218).

7 Verlinde, in his study, compared this structure to the Eudemos Gymnasium in Miletus and the Hellenistic Temenos in Pergamon.

This study will carry out a detailed stylistic analysis of the Doric capitals (Cat. Nos. 5-9), in addition to the discussions and dating mentioned above. The common profile characteristics observed in all these capitals include an elongated neck section with a downward inclination starting from the annulet, a thin line at the exact center of the plain neck, V-shaped annulets arranged in sets of three, a slightly proud echinus rising to meet the abacus, and a thin band separating the abacus table from the echinus at the point of contact. The abacus table is flat. Previous studies have suggested the structure with Doric elements in this area to adhere to the canonical proportions indicated by Vitruvius (Vitr. De arch. IV.3,4; Vasdaris, 1992, p. 40; Verlinde, 2010, p. 120). The Doric capitals have been reexamined in detail, revealing that the capitals themselves also exhibit a canonical design. For this purpose, a unit ratio has been considered of 8 cm (modulus) between the sections of the capitals. By distributing this ratio among the sections, the lower diameter becomes 40 cm, and each of the neck, echinus, and abacus parts measure 8 cm, while the width of the abacus table is 60 cm. Detailed measurements provided in the catalog section for the capitals indicate very little variation in height, supporting the presence of a canonical design for these Doric capitals (Fig. 13).

Numerous examples of Doric capitals with canonical designs can be found in the Caria Region dating from the second half of the 4<sup>th</sup> century BC to the early Roman Imperial period (Gider Büyüközer, 2013, pp. 51–52). Doric capitals with triple-set V-shaped annulets have been documented in various structures, including the Milas Museum (Gider Büyüközer, 2013, pp. 81–82, fig. 406a-b), Attouda (Yurtsever & Yılmaz Kolancı, 2022, pp. 203–204, figs. 12-13a-b), the Propylon of Athena sanctuary in Pergamon (Bohn, 1885, p. 55, fig. 64; Rumscheid, 1994, p. 35), the Banquet Hall (H) (Schazmann, 1923, pp. 58–60, pls. 20, 33), stoas in the Middle and Upper Terrace Gymnasia (Schazmann, 1923, pp. 28–40, 47–48, pl. 20-26, 30; Rumscheid, 1994, p. 35), and Sillyon's Doric Stoa (Lanckoroński, 1890, pp. 82–83, fig. 66; Rumscheid, 1994, tafs. 184, 352, 3). These examples date from the 2<sup>nd</sup> century BC to the 1<sup>st</sup> century BC, and the use of such annulets came to an end during the Augustan period (Gider Büyüközer, 2013, p. 81, fn. 444; Yurtsever & Yılmaz Kolancı, 2022, p. 203). The Pessinus examples demonstrate a canonical design with the use of canonical measurements and a natural appearance, indicating that the Pessinus capitals should be dated to an earlier period than later examples.

Based on the mentioned examples and historical context, the stylistic features of the Doric capitals in Pergamon serve as a valuable reference for dating the Pessinus capitals (Cat. Nos. 5-9). The political relations between the two cities between 163-156 BC and the secret correspondence between the King of Pergamon and the High Priests of the Mother Goddess of Pessinus are well-documented (Coşkun, 2019; Avram & Tsetschladze, 2014). During this period, Pessinus is expected to have experienced significant development activities with the support of the Pergamon Kingdom. The Pessinus capitals, which stylistically resemble the

Doric capitals of the lower level of the Stoa of Attalus in Athens, are likely to have been produced during the reign of Attalus II, when the secret correspondence between the two cities was ongoing. Hence, dating the Doric capitals in Cat. Nos. 5-9 to the period between 159-138 BC would be reasonable.

Another piece of evidence supporting this dating is the capitals from the North and East Stoa of the Athena Sanctuary in Pergamon, which have been dated between 197-159 BC (Rumscheid, 1994, p. 35, pl. 113, 8). These capitals display close stylistic similarities to the Pessinus capitals. However, the echini in the Pessinus examples rise at a steeper angle to the abacus, and the workmanship of the annulets is less plastic compared to the Pergamon examples. These stylistic differences suggest a period after the Pergamon examples. Considering that the structure housing the Pessinus capitals was a significant public building, it must have involved substantial costs. Pessinus is also known to have suffered a monetary loss after Rome's annexation of the Pergamon Kingdom in 133 BC (Verlinde, 2010, p. 132). Therefore, one may plausibly consider that this public building, along with the Doric capitals, had been constructed before 133 BC.

In conclusion, the stylistic analysis and historical evidence support dating the Doric capitals in Cat. Nos. 5-9 to the reign of Attalus II between 159-138 BC, during the time of increased political relations between Pergamon and Pessinus. This dating aligns with the significant development activities in Pessinus and takes into consideration the historical context of the monetary losses suffered after Rome's annexation of Pergamon. Significant observations can be made regarding the architectural identity of the structure where Doric capitals have been extensively identified. Recent findings from studies on ancient structures surrounded by stoas necessitate a reevaluation of this structure. The following subsection conducts an examination of the architectural identity of the Quadriporticus (Sector H) based on current research and brings forth new interpretations regarding the structure's architectural identity.<sup>8</sup>

8 The Quadriporticus (Sector H) where the Doric capitals labeled as Cat. Nos. 5-9 were found has been the subject of extensive archaeological excavation. These excavations have provided valuable information about the architectural characteristics of the structure, indicating it to have the characteristics of a Rhodian peristyle/quadriporticus, particularly in relation to the east and north stoas (Devreker et al., 2008, pp. 152–153, fig. 9; Devreker et al., 2009, p. 66, fig. 6; Verlinde, 2010, p. 124; 2015a, p. 61). Throughout the exploration of this area, various designations have been proposed, such as an agora, an independent palestra, a gymnasium, and a heroon (Verlinde, 2010, pp. 121–124; Verlinde, 2015a, p. 61, fn. 113). However, before delving into these studies and proposals, understanding the architectural character of gymnasia in Anatolia is essential. A. Yurtsever (2022, p. 368) identified four key features of Hellenistic gymnasia in Anatolia: an area surrounded by columns (palestra/peristyle), a monumental entrance structure (propylon), covered private spaces located directly opposite the monumental entrance, and integration with water features, often transformed into bathhouses in the Roman period and usually associated with water. Some of these features are evident in the specific peristyle structure of Pessinus, including the palestra/peristyle and the accentuated design of the front facade opposite the entrance. Archaeological findings have also revealed the presence of alabastron in the area and provided information about the water system on the north side (Verlinde, 2015a, p. 61). However,

## Conclusion

This research has aimed to examine the architectural features and historical significance of the Doric capitals in Pessinus. Throughout the article, the analyses and comparative studies have revealed the Doric capitals in Pessinus to exhibit a striking style and the influence of Pergamon to be evident due to the close relationship between the two cities. The different styles of the neck sections of the capitals, adorned with stepped profiles and V-shaped annulets, the variety in the echinus profiles, the flat abacus tables, and the crowning parts with Pergamon ovolo all indicate a rich diversity in architectural activity. The study has also focused on the dating of the Doric capitals in Pessinus, with the analyses suggesting these capitals to have been used from the 2<sup>nd</sup> century BC to the first quarter of the 1<sup>st</sup> century AD. Between the 3<sup>rd</sup>-2<sup>nd</sup> centuries BC, the Doric order was widely used in large public buildings in Anatolia. Fochetti (2020, p. 120) made a significant observation regarding the historical evolution of the use of the Doric order in Anatolia:

*Doric order's prominent use in public buildings in the Province of Asia spanned from the 3<sup>rd</sup> century BC to the late 2<sup>nd</sup> century BC. The decline in its use started in the early 1<sup>st</sup> century BC due to reduced architectural activities in Asia Minor, a consequence of political instability during the last years of the Roman Republic. However, during the Augustan age when public construction activities revived, the decline of the Doric order had already*

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for a definitive classification of the area as a palestra or gymnasium, the available data may be insufficient. Furthermore, the purpose of the water channels on the north side of the Quadriporticus remains unclear, making determining the exact function of the structure difficult.

The identification of the Quadriporticus as a traditional gymnasium/palestra is doubtful, as its characteristics do not fully match those of other Hellenistic period gymnasia in Anatolia. The definition proposed by Verlinde (2010, pp. 121-125) based on the gymnasium in Miletus known as the Gymnasium of Eudemos (Emme, 2013, pp. 113-118), has also been challenged by recent research, revealing its affiliation with the administration of the city of Miletus (Emme, 2013, pp. 113-118; 2018, p. 145; see also Trümper, 2015, pp. 196-203). According to B. Emme (2018, p. 145), the structure in Miletus commonly referred to as the gymnasium can be explained "due to its position at the center of the city as well as its spatial and chronological relationship to the neighboring bouleterion, the alleged Hellenistic gymnasium of Miletus might have housed a political or administrative institution of the city, instead." Furthermore, drawing parallels between the Quadriporticus in Pessinus and the Hellenistic ruler cult temenos in Pergamon as made by Verlinde reveals few comparable qualities. Emme (2018, pp. 144-149) offered valuable insights into the potential mislabeling of structures as gymnasia and highlighted the influence of symposium halls where city elites gathered on the design of such buildings. From this perspective, the Quadriporticus may have served as a meeting place for the city's elite, especially for priests. It may also have been associated with the administration of the city. In addition, the incomplete excavation and underground nature of a significant portion of the structure leave its relationship with the surrounding area unresolved. Attempts at restitution based on the limited documentation of structural elements should be treated as speculative hypotheses at this point. Patience is required, and further progress in archaeological excavations in this area may yield new findings that will contribute to a more comprehensive understanding of the true purpose and architectural identity of the Quadriporticus at Pessinus.

In conclusion, despite extensive research, uncertainty still exists in ascertaining the precise function of the Quadriporticus due to the lack of definitive evidence. As a result of its unique architectural characteristics and discrepancies concerning traditional gymnasia, an interpretation with caution is required. Keeping in mind the complex historical and cultural context of the region, future archaeological excavations and discoveries will be crucial in elucidating the enigmatic Quadriporticus and its significance in the ancient city of Pessinus.

*begun. The long decline of the Doric order in public buildings culminated in its general disuse from the late 1<sup>st</sup> century AD. As evidence of this, Doric public buildings from the 2<sup>nd</sup> century AD are scarce in the Province of Asia, much like in Asia Minor, and can be seen as isolated cases.*

Fochetti's significant observation regarding the use of Doric architecture in Asia Minor should be applicable to the usage of Doric architecture in Pessinus as well. Pessinus is likely to have produced noteworthy architectural achievements during the Hellenistic and Augustan periods. Notably, these eras witnessed significant cultural and artistic advancements in Pessinus, and the Doric capitals under consideration are regarded as valuable relics from that era. When considering the form and dimensions of Cat. Nos. 2-4, investigating the existence of a substantial public building or a temple associated with the Augustan period in Pessinus becomes imperative.

The section on the Architectural identity of the Quadriporticus emphasizes the importance of the excavations carried out in the area where the Cat. Nos. 5-9 Doric capitals were found. The data obtained in this section, along with the analyses and comparisons made on the structure, provide important information about the function of the building examined under different headings such as palestra/gymnasium. However, more archaeological data and progress in excavation work are said to be needed regarding the structure. The Doric capitals in Pessinus are an important part of the ancient artistic heritage and belong to a rich architectural period. They are considered valuable representatives of the city's architectural identity and cultural heritage. However, some questions remain unanswered about the exact structure and usage purpose of these capitals, as information about their original findspots or the buildings they belonged to are yet to be had.

In conclusion, this study provides a detailed examination of the architectural and stylistic features of the Doric capitals in Pessinus and makes a unique contribution to the artistic heritage of ancient cities in Asia Minor. Additionally, the close relationship between Pergamon and Pessinus has served as a significant reference for explaining the influence on the architectural style in Pessinus. The findings from this study will shed light on the understanding of other ancient structures in Asia Minor and guide future archaeological research.

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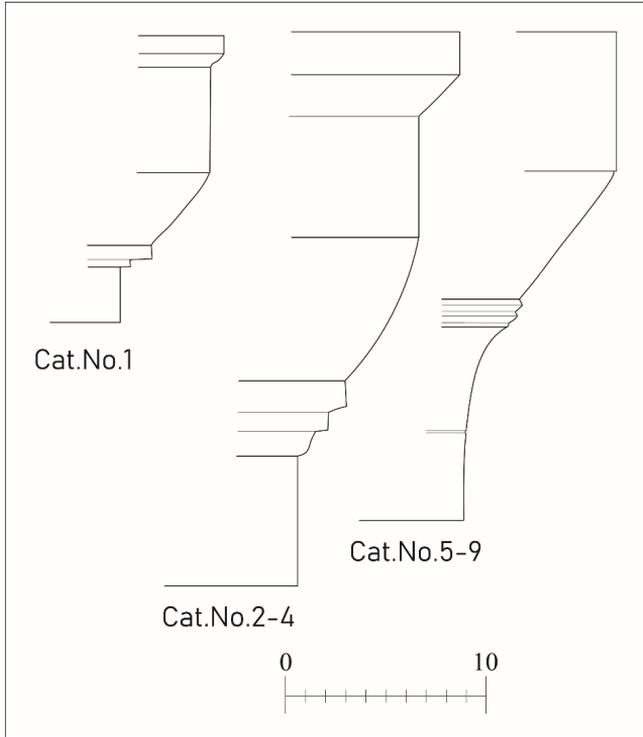
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**Table 1.** Catalog information of the Doric capitals

Cat. No.	Material Type	Discovery Location	Dimen.	Ovolo Profile	Aba. H.	Ech. H.	Ann. H.	Neck H.	Dowel	Proposed Dating
1 (Fig.2,11)	Marble	Excavation House Garden	H. 16cm, W. 39 cm, D. 33 cm	3 cm	5,5 cm	3 cm	1 cm	3.5 cm	-	Early Augustan Period - 27 BC to 14 AD
2 (Fig.3, 12)	Marble	Excavation House Garden	H. 25.5 cm, W. 64 cm, D. 55.5 cm	-	8 cm	8 cm	3.5 cm	6 cm	4x4x5 cm	Augustan Period
3 (Fig.4, 12)	Marble	Excavation House Garden	H. 21.5 cm, W. 65 cm, D. 55 cm	-	8 cm	5.5 cm	3.5 cm	4.5 cm	4x4x4 cm	Augustan Period
4 (Fig.5, 12)	Marble	Excavation House Garden	H. 24.5 cm, W. 65 cm, D. 55 cm	3.5/4 cm	5 cm	6 cm	3.5 cm	6.5 cm	5x4x4 cm	Augustan Period
5 (Fig.6,13)	Sandstone	Temple Area-Quadriporticus East Stoa	H. 23.5 cm, W. 55.5 cm, D. 42 cm	-	8 cm	6 cm	2 cm	7.5 cm	7x7x5 cm	159-138 BC (Proposed)
6 (Fig.7,13)	Sandstone	Temple Area-Quadriporticus East Stoa	H. 23.5 cm, W. 63 cm, D. 41 cm	-	8 cm	5 cm	2 cm	8.5 cm	7x7x6 cm	159-138 BC (Proposed)
7 (Fig.8,13)	Sandstone	Temple Area-Quadriporticus East Stoa	H. 24.5 cm, W. 60 cm, D. 43.5 cm	-	8 cm	6 cm	1.5 cm	9 cm	7x7x7 cm	159-138 BC (Proposed)
8 (Fig.9,13)	Sandstone	Temple Area-Quadriporticus East Stoa	H. 24.5 cm, W. 60 cm, D. 43.5 cm	-	8 cm	6 cm	1.5 cm	9 cm	7x7x7 cm	159-138 BC (Proposed)
9 (Fig.10)	Sandstone	Temple Area-Quadriporticus East Stoa	H. 27.5 cm, W. 58 cm, D. 43 cm	-	8 cm	7 cm	1.5 cm	11 cm	7x6x6 cm	159-138 BC (Proposed)

In the table: **H** stands for **Height**, **W** for **Width**, and **D** for **Depth**.  
**Dimen.**: Dimencion, **Aba.**: Abacus, **Ech.**: Echinus, **Ann.**: Annulet

### Figures



**Figure 1:** The profile drawings of the Doric capitals classified as Cat. Nos. 1, 2-4, and 5-9.



**Figure 2:** General view of the Doric capital with Cat. No. 1.



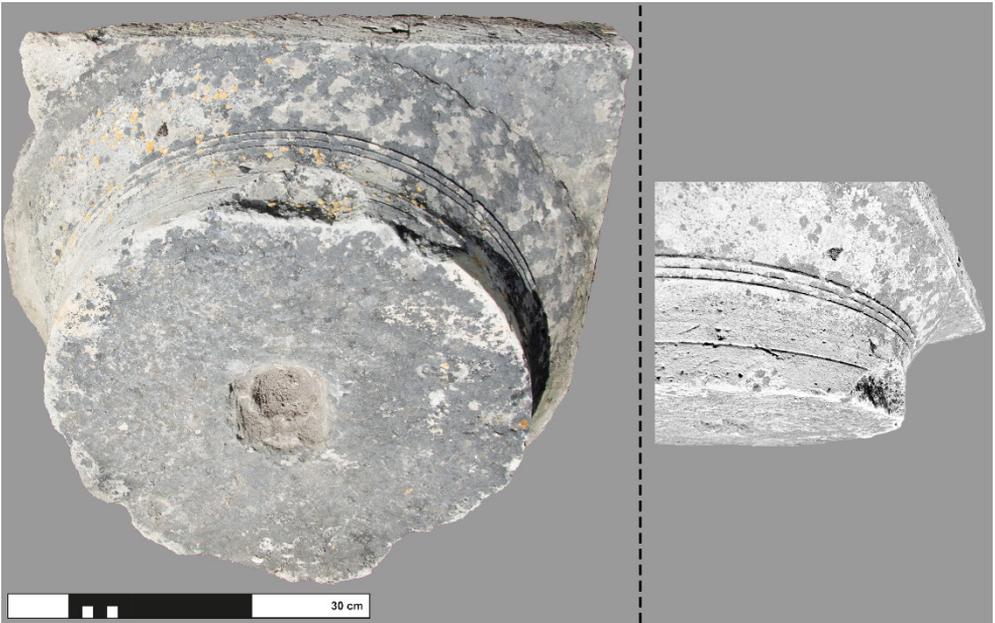
**Figure 3:** General and detailed view of the Doric capital with Cat. No. 2.



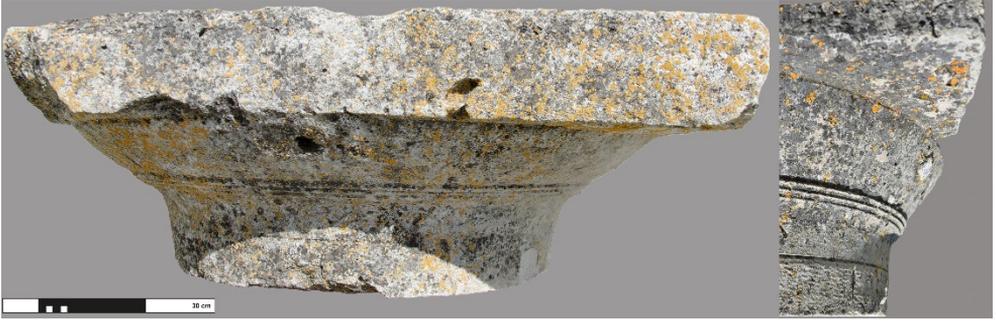
**Figure 4:** General view of the Doric capital with Cat. No. 3.



**Figure 5:** General and detailed view of the Doric capital with Cat. No. 4.



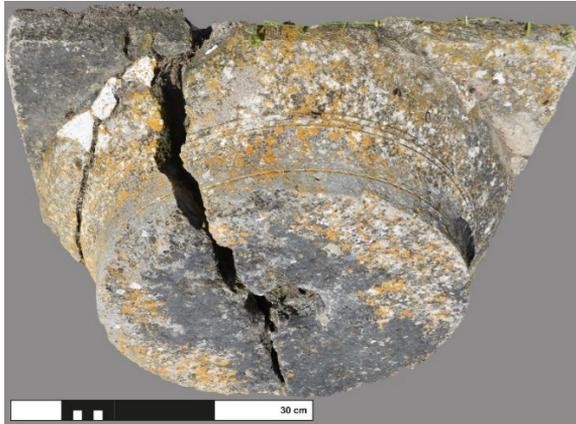
**Figure 6:** General and detailed view of the Doric capital with Cat. No. 5.



**Figure 7:** General and detailed view of the Doric capital with Cat. No. 6.



**Figure 8:** General view of the Doric capital with Cat. No. 7.



**Figure 9:** General and detailed view of the Doric capital with Cat. No. 8.



Figure 10: General and detailed view of the Doric capital with Cat. No. 9.

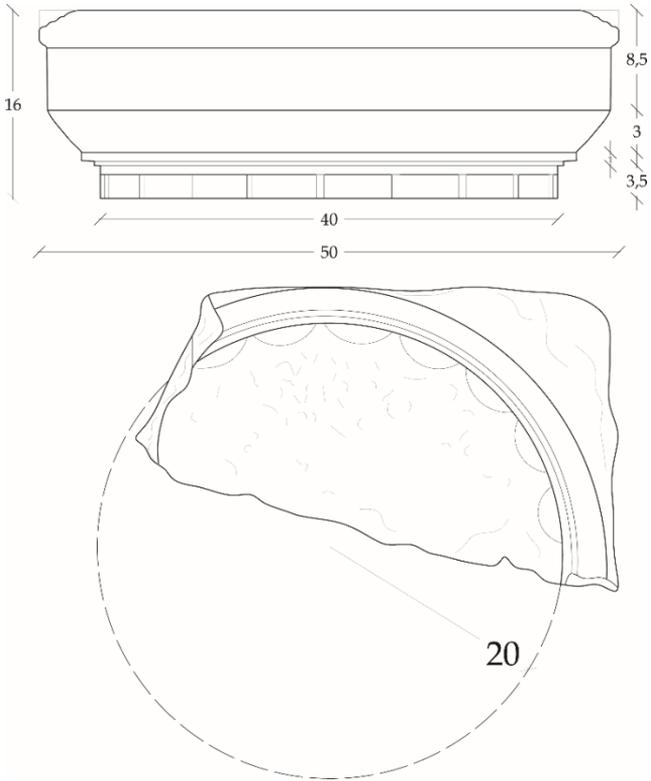
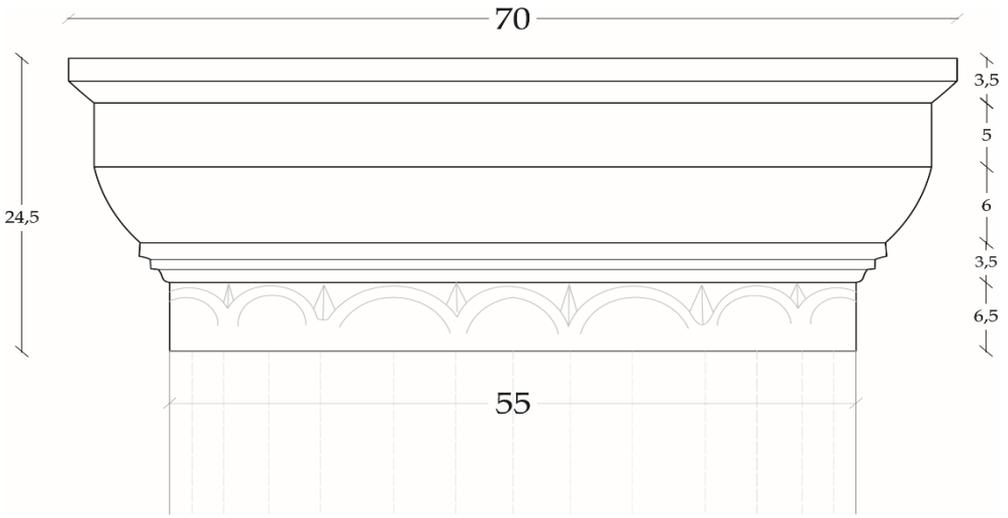
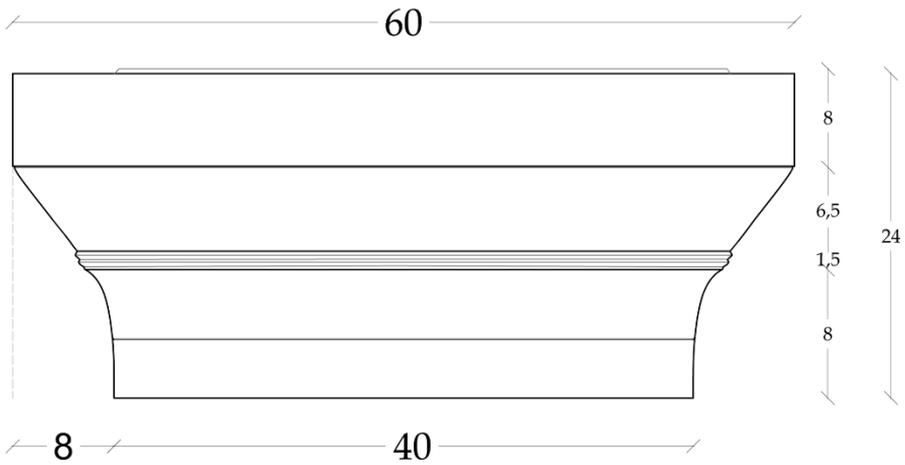


Figure 11: Scaled drawing of the Doric capital with Cat. No. 1.



**Figure 12:** Restituted drawings of the Doric capitals with Cat. Nos. 2-4 scaled.



**Figure 13:** Restituted drawings of the Doric capitals with Cat. Nos. 5-8, based on canonical measurements.

